

AMENDMENTS

IN THE CLAIMS:

Please cancel claims ~~9, 13-20 and 24.~~

Please add new claims 25-34 as follows:

Sub G' 25. (New) A purified specific polynucleotide comprising a sequence selected from the group consisting of SEQUENCE ID NO:1, SEQUENCE ID NO:2, SEQUENCE ID NO:3, SEQUENCE ID NO:4, SEQUENCE ID NO:5, SEQUENCE ID NO:6, SEQUENCE ID NO:7, SEQUENCE ID NO:8, SEQUENCE ID NO:9, SEQUENCE ID NO:10, SEQUENCE ID NO:11, SEQUENCE ID NO:12, SEQUENCE ID NO:13, and SEQUENCE ID NO:14, full complements of SEQUENCE ID NO:1, SEQUENCE ID NO:2, SEQUENCE ID NO:3, SEQUENCE ID NO:4, SEQUENCE ID NO:5, SEQUENCE ID NO:6, SEQUENCE ID NO:7, SEQUENCE ID NO:8, SEQUENCE ID NO:9, SEQUENCE ID NO:10, SEQUENCE ID NO:11, SEQUENCE ID NO:12, SEQUENCE ID NO:13, and SEQUENCE ID NO:14, and equivalent degenerate coding sequences thereof.

26. (New) The polynucleotide of claim 25, wherein the polynucleotide encodes a protein which comprises an amino acid sequence selected from the group consisting of SEQUENCE ID NO:17, full complements of SEQUENCE ID NO:17 and equivalent degenerate coding sequences thereof.

27. (New) The polynucleotide of claim 25, wherein the polynucleotide is a sequence selected from the group consisting of SEQUENCE ID NO:14, full complements of SEQUENCE ID NO:14 and equivalent degenerate coding sequences thereof.

28. (New) The polynucleotide of claim 25, wherein the polynucleotide is produced by recombinant techniques.

29. (New) The polynucleotide of claim 25, wherein the polynucleotide is produced by synthetic techniques.


30. (New) The polynucleotide of claim 25, wherein the polynucleotide comprises a sequence encoding at least one epitope.

31. (New) The polynucleotide of claim 25, wherein the polynucleotide is attached to a solid phase.

546 B² 32. (New) A recombinant expression system comprising a nucleic acid sequence that includes an open reading frame operably linked to a control sequence compatible with a desired host, wherein the nucleic acid sequence is selected from the group consisting of:

SEQUENCE ID NO:1, SEQUENCE ID NO:2, SEQUENCE ID NO:3, SEQUENCE ID NO:4, SEQUENCE ID NO:5, SEQUENCE ID NO:6, SEQUENCE ID NO:7, SEQUENCE ID NO:8, SEQUENCE ID NO:9, SEQUENCE ID NO:10, SEQUENCE ID NO:11, SEQUENCE ID NO:12, SEQUENCE ID NO:13, and SEQUENCE ID NO:14, full complements of SEQUENCE ID NO:1, SEQUENCE ID NO:2, SEQUENCE ID NO:3, SEQUENCE ID NO:4, SEQUENCE ID NO:5, SEQUENCE ID NO:6, SEQUENCE ID NO:7, SEQUENCE ID NO:8, SEQUENCE ID NO:9, SEQUENCE ID NO:10, SEQUENCE ID NO:11, SEQUENCE ID NO:12, SEQUENCE ID NO:13, and SEQUENCE ID NO:14, and equivalent degenerate coding sequences thereof.

33. (New) A cell transfected with the recombinant expression system of claim 32.

 34. (New) A method for producing a polypeptide comprising at least one epitope, said method comprising:
incubating host cells that have been transfected with an expression vector containing a polynucleotide sequence encoding a polypeptide having an amino acid sequence selected from the group consisting of SEQUENCE ID NO:17, SEQUENCE ID NO:18, SEQUENCE ID NO:19, SEQUENCE ID NO:20, and SEQUENCE ID NO:21.

REMARKS

The Examiner maintains the previous utility rejection under 35 U.S.C. 101. The Examiner claims that Applicant has not provided sufficient evidence to support the contention that SEQUENCE ID NOS:1-14 are RING finger proteins or that all RING finger family members are associated with cancer.

Applicant disagrees and further submits Exhibits A through C for support.

Exhibit A illustrates the homology between a novel GERP protein (a RING finger protein discussed below) and the claimed BS203 sequence. As one can see from this comparison, BS203 comprises almost 100% of the open reading frame of the GERP sequence. Thus, this overcomes the Examiner's contention that BS 203 is not a RING finger protein.

Exhibit B is an article entitled "A Novel RING finger-B Box-Coiled-Coil Protein, GERP", Biochem. and Biophys. Research Comm. 270, pp 482-486(2000). This reference illustrates that a novel RING finger protein, referred to as GERP, is expressed in a variety of tumors including adenocarcinoma, which comprises 95% of breast